431234

**Lower Darby Creek Area Superfund Site**

1. American Consolidated Manufacturing, Inc.
   a) April 20, 1955
   b) April 20, 1955
   c) No parent company or subsidiaries.

2.
   a) Dental bonding and filler manufacture and cosmetic acrylic finger nail manufacture.
   b) Dental bonding and filler manufacture.
   c) In 1976 American Consolidated had 10 employees and four products. Since the move to West Conshohocken in 1989 we started a brand name cosmetic nail business. In 1989 American Consolidated increased to 12 employees.

3.
   a) Fred Slack
   b) American Consolidated
   c) President
   d) 1960 to present.
   e) [redacted]
   f) [redacted]

4.
   a) Same as question number 3.
   b) President
   c) Not available

5.
Document generated or maintained.
   1) Handling – None
   2) Generation – None
   3) Storage – None
   4) Treatment – None
   5) Transportation – None
   6) Recycling – None
   7) Formulation – Paper converted to computer.
   8) Disposal of hazardous waste – None generated.

   a) Section 7 from above where the only document ever generated.
      a. The formulations contain the appropriate amount of each ingredient to add to the mixture as well as the time to be mixed.
      b. The person in custodian of these documents at the time would have been Harry Kemler who is now deceased.
   b) None required
   c) Not applicable, these materials where made in such low volume that waste was never generated. All material was eventually used in the formulations.

6.

| Material | Characteristics | Annual Qty. | Usage Dates | Container Size | Supplier |
|---|---|---|---|---|---|
| Methyl Methacrylate | Liquid | 110 Gallons | 1974 to present | 55 Gallon | Rohm & Haas |
| N,N Dimethyl-P-Toluidine | Liquid | 10 Gallons | 1974 to present | 5 Gallon | Esschem |
| Acetone | Liquid | 30 Gallons | 1974 to present | 5 Gallon | Unknown |
| Dibuty Phthalate | Liquid | 30 Gallons | 1974 to present | 5 Gallon | Unknown |
| Ethylene Glycol Dimethacrylate | Liquid | 30 Gallons | 1974 to present | 5 Gallon | Esschem |

7.

a) No by products produced.
b) Not applicable.
c) Not applicable.
d) Not applicable.
e) Not applicable.
f) Not applicable.

8. We have no records remaining of doing business with any of the for mentioned companies. After inquiring to the EPA of why we received this questionnaire. We where told that we did business with Tri-County Hauling from 1974 to 1976.
   a) Not available
   b) Not available
   c) Not available
   d) Not available
   e) Not available
   f) Not available
   g) Not available
   h) Not available
   i) Not available

9. Fred Slack would have been the person to approve any contracts with trash companies. At no time did American Consolidated contract with any disposal company for hazardous waste disposal.

10. To our knowledge we have never disposed of or treated any material at the mentioned sites. The only information we have is from the EPA telling us that we used a trash service from 1974 to 1976 that used one of the mentioned landfills to dump there garbage. As far as any invoices from that time period, they have all been discarded.

11. No.

12. Same as answer 3

13. No

14. No additional information.

15.

a. Kirby H. Slack – 2 Union Hill Road, W. Conshohocken, PA 19428 – 610-825-2630 – General Manager
b. Same as above.

16.

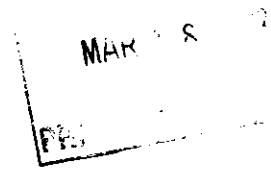
a. Document retention policy
    a. Accounts Payable – 7 years
    b. Accounts Receivable – 7 years
    c. Expense Reports – 7 years
    d. Inventory Records – 7 years
    e. Bank Reconciliation – 2 years
    f. Bank Statements – 7 years
    g. Cancelled Checks – 7 years
    h. Payroll Records – 7 years
    i. Ex-employees – 7 years
    j. Employee applications – 3 years
    k. Formulations – Once discontinued they are discarded unless on the computer.
b. Trashed
c. Invoices and payment vouchers.
d. Fred Slack – same as answer 3

**KIRBY SLACK**
***General Manager***

1-800-523-0740
1-610-825-2630
FAX 1-610-825-1958
email: kslack@netreach.net

2 UNION HILL ROAD
W. CONSHOHOCKEN, PA
USA 19428

AMCO INTERNATIONAL



# Sartomer Company
# Material Safety Data Sheet

Product: SR206 Revised Date: 12-14-1999
MSDS ID: D-001162 Replaces Date: 12-14-1999

## 01. GENERAL INFORMATION

Sartomer Company, Inc.
Oaklands Corporate Center
502 Thomas Jones Way
Exton, Pennsylvania 19341

Emergency phone numbers:
800/424-9300 (CHEMTREC)
610/692-8401 (Sartomer Co., Inc.)
Product information:
610/363-4100
GENERIC NAME
Ethylene Glycol Dimethacrylate
DOT PROPER SHIPPING NAME
N/AP
UN/NA NUMBER
N/AP
DOT HAZARD CLASS
Not regulated

## 02. SUMMARY OF HAZARDS

WARNING

| | |
|---|---|
| PHYSICAL HAZARDS: | Unstable (reactive) upon depletion of inhibitor |
| ACUTE HEALTH EFFECTS: (SHORT TERM) | Suspect respiratory tract irritation hazard<br>Suspect eye irritation hazard<br>Slight skin absorption hazard<br>Moderate skin irritant<br>Suspect skin sensitization hazard<br>Slight ingestion hazard |
| CHRONIC HEALTH EFFECTS: (LONG TERM) | See Supplement section of this MSDS for chronic health effects information. |

## 03. COMPONENTS

| COMPONENT NAME | CAS NUMBER | % COMPOSITION (BY WT.) |
|---|---|---|
| Ethylene Glycol Dimethacrylate Esters | 97-90-5 | AP 100 |

## 04. PHYSICAL AND CHEMICAL DATA

BOILING POINT
125-130C/257-266F at 20 Torr
PH
AP 6.8 to 7.2
FREEZING POINT
N/DA
DRY POINT
N/DA
SPECIFIC GRAVITY (H20=1 AT 39.2F)
AP 1.04-1.06 at 25C/77F
VOLATILE CHARACTERISTICS
Negligible
VISCOSITY UNITS, TEMP. (Brookfield)
AP 3-7 cps at 25C/77F
SOLUBILITY IN WATER
Negligible
VAPOR PRESSURE
N/DA
STABILITY
Stable
VAPOR SP GR (AIR=1 AT 60 - 90F)
N/DA
HAZARDOUS POLYMERIZATION
May occur

APPEARANCE AND ODOR
Clear, water-white liquid with mild, musty odor

CONDITIONS AND MATERIALS TO AVOID
High temperatures, localized heat sources (ie, drum or band heaters), oxidizing conditions, freezing conditions, direct sunlight, ultraviolet radiation, inert gas blanketing;
Strong oxidizers, strong reducers, free radical initiators, inert gases, oxygen scavengers

HAZARDOUS DECOMPOSITION PRODUCTS
Acrid smoke-fumes/carbon monoxide/carbon dioxide and perhaps other toxic vapors may be released during a fire involving this product.

## 05. OCCUPATIONAL EXPOSURE LIMITS

| SUBSTANCE | SOURCE | DATE | TYPE | VALUE | TIME |
|---|---|---|---|---|---|

A PEL or TLV has not been established

## 06. FIRE AND EXPLOSION

FLASH POINT METHOD=(PMCC) AUTOIGNITION TEMP. METHOD=
GT 93C/200F N/DA

FLAMMABLE LIMITS (% VOLUME IN AIR)
LOWER: N/DA UPPER: N/DA

FIRE AND EXPLOSION HAZARDS
High temperatures, inhibitor depletion, accidental impurities, or exposure to radiation or oxidizers may cause spontaneous polymerizing reaction generating heat/pressure. Closed containers may rupture or explode during runaway polymerization.

EXTINGUISHING MEDIA
Dry chemical
CO2
Foam
Use water spray/water fog for cooling

SPECIAL FIREFIGHTING PROCEDURES
Do not enter fire area without proper protection. See Section 5 - decomposition products possible. Fight fire from safe distance/protected location. Heat/impurities may increase temperature/build pressure/rupture closed containers, spreading fire, increasing risk of burns/injuries. Water may be ineffective in firefighting due to low solubility. Use water spray/fog for cooling. Pressure relief system may plug with solids, increasing risk of overpressure. Notify authorities if liquid enters sewer/public waters.

## 07. HEALTH HAZARDS

ROUTES OF EXPOSURE

INHALATION

No significant signs or symptoms indicative of any adverse health hazard are expected to occur at standard conditions due to the low volatility of this material. However, aerosols, or vapors which may be generated at elevated processing temperatures, may cause respiratory tract irritation. Symptoms o irritation may include coughing, mucous production and shortness of breath.

EYE CONTACT -- PRIMARY ROUTE
May cause eye irritation. Symptoms may include burning sensation, tearing, redness or swelling.

SKIN ABSORPTION -- PRIMARY ROUTE
Extensive/prolonged or repeated exposure to this material can result in significant absorption.

SKIN IRRITATION -- PRIMARY ROUTE
This material has been shown to be a moderate skin irritant and an allergic sensitizer.

INGESTION
This material may be a slight health hazard if ingested in large quantities.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
This material or its emissions may induce an allergic or sensitization reaction and thereby aggravate systemic disease.

## 08. PROTECTIVE EQUIPMENT / CONTROL MEASURES

RESPIRATORY PROTECTION
If this material is handled at elevated temperature or under mist forming conditions, NIOSH/MSHA approved respiratory protection equipment should be used.

EYE PROTECTION
Eye protection such as chemical splash goggles and/or face shield must be worn when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapor. Contact lenses should not be worn.

SKIN PROTECTION
When skin contact is possible, protective clothing including gloves, apron, sleeves, boots, head and face protection should be worn. This equipment must be cleaned thoroughly after each use.

ENGINEERING CONTROLS
If handling results in aerosol or vapor generation, local exhaust ventilation is recommended.

OTHER HYGIENIC PRACTICES
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

OTHER WORK PRACTICES

Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled clothing/wash thoroughly before reuse. Shower after work using plenty of soap and water.

## 09. EMERGENCY AND FIRST AID

INHALATION

If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

EYE CONTACT

In case of eye contact, immediately rinse with clean water for 20-30 minutes. Retract eyelids often. Obtain emergency medical attention.

SKIN CONTACT

Immediately remove contaminated clothing. Wash skin thoroughly with mild soap/water. Flush w/lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Seek medical attention if ill effect or irritation develops.

INGESTION

If large quantity swallowed, give lukewarm water (pint) if victim completely conscious/alert. Do not induce vomiting/risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention.

EMERGENCY MEDICAL TREATMENT PROCEDURES

Maintain airway. Provide oxygen and/or ventilation assistance, if needed. Treat burns or allergic reactions conventionally after decontamination.

## 10. SPILL AND DISPOSAL

PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED

Spilled or released material may polymerize and release heat/gases. Extinguish all ignition sources and ventilate area. Wear protective equipment during clean-up. Dike and recover large spill. Soak up small spill with inert solids (such as vermiculite, clay) and sweep/shovel into vented disposal container. Wash spill area with a strong detergent and wate solution; rinse with water but minimize water use during clean-up. For spills on water, contain, minimize dispersion and collect. Dispose/report per regulatory requirements.

WASTE DISPOSAL METHODS

Non-contaminated, properly inhibited product is not a RCRA hazardous waste. However, contaminated product/soil/water may be RCRA/OSHA hazardous waste du to potential for internal heat generation (see 40 CFR 261 and 29 CFR 1910). It is the responsibility of the generator to determine at the time of disposal whether the product meets the criteria of a hazardous waste. Comply with all applicable federal, state and local regulations. Use registered transporters. Disposal options include landfilling solids at permitted sites; fuel blending or incinerating liquids. Assure emissions comply with applicable regulations. Dilute aqueous waste may biodegrade; avoid overloading/poisoning plant biomass. Assure effluent complies with applicable regulations.

## 11. ADDITIONAL PRECAUTIONS

HANDLING AND STORAGE PROCEDURES

Unless inhibited, product can polymerize, raising temperature and pressure, possibly rupturing container. Check inhibitor content often, adding to bulk liquid if needed. Do not blanket or mix with oxygen-free gas as it renders inhibitor ineffective. Do not store at/below 32F -- inhibitor can separate as a solid. If frozen, warm and remix material gently (< 90F). Prevent moisture contact. Store in tightly closed, properly vented containers away from: heat, sparks, open flame, strong oxidizers, radiation, and other initiators. Prevent contamination by foreign materials. Use only non-sparking tools and limit storage time.

DECONTAMINATION PROCEDURES
Follow standard plant procedures or supervisor's instructions for decontamination operations.

## 12. LABEL INFORMATION

USE STATEMENT
FOR INDUSTRIAL USE ONLY
SIGNAL WORD
WARNING
PHYSICAL HAZARDS
UNSTABLE (REACTIVE) UPON LOSS OF INHIBITOR
HEALTH HAZARDS
CAUSES EYE AND SKIN IRRITATION
MAY CAUSE ALLERGIC SKIN REACTION
PRECAUTIONARY MEASURES
HAZARDOUS POLYMERIZATION MAY OCCUR UPON DEPLETION OF INHIBITOR.
DO NOT HANDLE NEAR HEAT, SPARKS, OR OPEN FLAME.
AVOID CONTACT WITH EYES, SKIN AND CLOTHING.
AVOID BREATHING VAPORS/MISTS.
USE ONLY WITH ADEQUATE VENTILATION/PERSONAL PROTECTION.
KEEP CONTAINER CLOSED WHEN NOT IN USE.
WASH THOROUGHLY AFTER HANDLING.
BEFORE USING PRODUCT, READ MATERIAL SAFETY DATA SHEET (MSDS).

## 13. SUPPLEMENT

NPCA - HMIS RATING

| | |
|---|---|
| Health | 2 |
| Flammability | 1 |
| Reactivity | 2 |
| Personal protection** | D |

**Respiratory protection may be necessary depending on conditions of use.

CHRONIC HEALTH EFFECTS INFORMATION:
This material was positive for mutagenicity in the mouse lymphoma assay but negative in the Ames test. There is reason to believe that the mouse lymphoma assay was a false positive finding. It should be noted that this assay system produces a high incidence of false responses.

REGULATORY INFORMATION

TSCA status: All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.
California Proposition 65 Information: This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity.
International Inventory Status

| | |
|---|---|
| Australia (AICS): | included on inventory |
| Canada (DSL): | included on inventory |
| European Economic Community (EINECS): | included on inventory |
| Japan (ENCS): | included on inventory |
| Korea (ECL): | included on inventory |

This material contains an inhibitor (HQ, MEHQ, etc.) at <1%. The type and amount meet product specifications. Contact a company representative for exact concentrations and details on inhibitor level maintenance.
*Note - qualifiers and codes used in this MSDS
EQ = Equal; AP = Approximately; LT = Less Than; GT = Greater Than; TR = Trace; UK = Unknown; N/AP = Not Applicable; N/P = No Applicable Information Found; N/DA = No Data Available

## 14. DISCLAIMERS

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable. This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

MATERIAL SAFETY DATA SHEET

100000081/F/USA
Revision Date: 02/25/1998

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: "EASTMAN" DBP Plasticizer

Product Identification Number(s): 00081-00

Manufacturer/Supplier: Eastman Chemical Company, Kingsport, Tennessee 37662

MSDS Prepared by: Eastman Product Safety and Stewardship, Eastman Chemical Company, Kingsport, TN 37662

For Emergency Health, Safety & Environmental Information, call 800-EASTMAN

For Emergency Transportation Information, call CHEMTREC at 800-424-9300 or call 800-EASTMAN

For Other Information, call your Eastman representative or the Eastman operator at 423-229-2000 (USA)

Chemical Name: 1,2-benzenedicarboxylic acid, dibutyl ester

Synonym(s): PM 00081-00; EAN 901403; dibutyl phthalate

Molecular Formula: C16H22O4

Molecular Weight: 278.35

Product Use: plasticizer

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Weight % - Component - (CAS Registry Number)

100 dibutyl phthalate (000084-74-2)

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3. HAZARDS IDENTIFICATION

HIGH ORAL DOSES OF THIS MATERIAL CAUSE ADVERSE REPRODUCTIVE EFFECTS IN LABORATORY ANIMALS - SEE MSDS FOR DETAILS

HMIS Hazard Ratings: Health - 1, Flammability - 1, Chemical Reactivity - 0

NFPA Hazard Ratings: Health - 0, Flammability - 1, Instability - 0

NOTE: HMIS and NFPA ratings involve data and interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this

MSDS must be considered.

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4. FIRST-AID MEASURES

Inhalation: If symptomatic, move to fresh air. Get medical attention if symptoms persist.

Eyes: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist.

Skin: Wash with soap and water. Get medical attention if symptoms occur.

Ingestion: Seek medical advice.

---

5. FIRE FIGHTING MEASURES

Extinguishing Media: water spray, dry chemical, carbon dioxide (CO2), foam

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing.

Hazardous Combustion Products: carbon dioxide, carbon monoxide

Unusual Fire and Explosion Hazards: none

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6. ACCIDENTAL RELEASE MEASURES

Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

For Large Spills: Flush spill area with water spray. Prevent runoff from entering drains, sewers, or streams.

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7. HANDLING AND STORAGE

Personal Precautionary Measures: Do not taste or swallow. Wash thoroughly after handling.

Prevention of Fire and Explosion: Keep from contact with oxidizing materials.

Storage: Keep container closed.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:

ACGIH Threshold Limit Value (TLV):

dibutyl phthalate: 5 mg/m3 TWA

OSHA (USA) Permissible Exposure Limit (PEL, 1989 Table Z-1-A values or section-specific standards):

dibutyl phthalate: 5 mg/m3 TWA

Ventilation: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. Respirator type: mist. If respirators are used, a program should be instituted to assure compliance with OSHA Standard 29 CFR 1910.134.

Eye Protection: It is a good industrial hygiene practice to minimize eye contact.

Skin Protection: It is a good industrial hygiene practice to minimize skin contact.

Recommended Decontamination Facilities: eye bath, washing facilities

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9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical Form: liquid
- Color: colorless
- Odor: odorless
- Odor Threshold: not applicable
- Specific Gravity at 20°C (68°F) (water = 1): 1.048
- Vapor Pressure at 20°C (68°F): 0.0000189 mbar (0.0000142 mm Hg)
- Vapor Density (Air = 1): 9.6
- Evaporation Rate: negligible
- Boiling Point: 340°C (644°F)
- Melting Point: -35°C (-31°F)
- Viscosity at 25°C (77°F): 15 mPa.s or cP
- Solubility in Water: 11.2 mg/L (negligible)
- pH: not available
- Octanol/Water Partition Coefficient: log P = 4.79, P = 61660
- Flash Point (Cleveland open cup): 191°C (375°F)
- Lower Explosive Limit at 236°C (457°F): 0.47 volume %
- Upper Explosive Limit: not available
- Autoignition Temperature (ASTM D2155): 404°C (759°F)
- Sensitivity to Mechanical Impact: insensitive at 100 kg-cm
- Sensitivity to Static Discharge: not available

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10. STABILITY AND REACTIVITY

Stability: stable

Incompatibility: Material can react with strong oxidizing agents.

Hazardous Polymerization: will not occur

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11. TOXICOLOGICAL INFORMATION

Effects of Exposure:

General: High oral doses of this material given to pregnant animals produced some minor abnormalities in their offspring. However, high doses to humans handling this material are not expected since oral consumption is not a likely route of significant exposure. Because this material does not evaporate readily and is not easily absorbed through the skin, it is not expected to produce such effects in humans through inhalation or skin exposure when handled in a manner consistent with the precautionary measures contained in this material safety data sheet.

Inhalation: Low hazard for usual industrial handling or commercial handling by trained personnel.

Eyes: Low hazard for usual industrial handling or commercial handling by trained personnel.

Skin: Low hazard for usual industrial handling or commercial handling by trained personnel.

Ingestion: High oral doses of this material cause adverse reproductive effects in laboratory animals.

Acute Toxicity Data:

Oral LD-50 (rat): 20-25 g/kg
Inhalation LC-50: not available
Dermal LD-50 (guinea pig): >2 ml/kg (highest dose tested)
Dermal LD-50 (rabbit): >20 ml/kg (highest dose tested)
Skin irritation (guinea pig): slight
Skin irritation (rabbit): none
Eye irritation (human): slight

Definitions for the following section(s): LOEL = lowest-observed-effect level, NOAEL = no observed-adverse-effect level, NOEL = no-observed-effect level.

Subchronic Toxicity Data:

Dermal study (90 days, rabbit): LOEL = 4200 mg/kg/day (target organ effects: kidney); NOEL = 2100 mg/kg/day

Oral study (9 days, mouse): LOEL = 2000 mg/kg/day (target organ effects: testes) (only dose tested)

Oral study (21 days, rat): LOEL = 624 mg/kg/day (minor target organ effects: liver); NOEL = not established

Oral study (35-45 days, rat): LOEL = 2500 mg/kg/day (target organ effects: testes); LOEL = 250 mg/kg/day (target organ effects: liver) (reduced body weight gain); NOEL = 250 mg/kg/day

Oral study (90 days, rat): NOAEL = 120 mg/kg/day (minor target organ effects: liver); NOEL = not established

Oral study (105 days, mouse): NOAEL = 1300 mg/kg/day (minor target organ effects: liver); NOEL = 390 mg/kg/day

Chronic Toxicity Data:

Oral study (1 year, rat): NOEL = 0.125% in diet (only concentration tested)

Developmental Toxicity Data:

Oral study (mouse): LOEL for maternal toxicity = 2100 mg/kg/day; NOEL for maternal toxicity = 660 mg/kg/day, NOEL for teratogenicity = 660 mg/kg/day; LOEL for embryo/fetotoxicity = 80 mg/kg/day; NOEL for embryo/fetotoxicity = not established

Oral study (rat): LOEL for embryo/fetotoxicity = 600 mg/kg/day; NOEL for developmental toxicity = 120 mg/kg/day

Reproductive Toxicity Data:

Oral study (mouse): LOEL for maternal/paternal fertility = 1% in diet; NOEL for maternal/paternal fertility = 0.3% in diet

Dermal absorption rate (human, in vitro): 6.6 microgram(s)/cm2/hour
Dermal absorption rate (human, in vitro): 2.4 microgram(s)/cm2/hour

Mutagenicity/Genotoxicity Data:

Cell transformation assay: negative
Chromosomal aberration assay: equivocal
Mitotic recombination (Saccharomyces cervisiae) assay: negative (+/- activation)
Mouse lymphoma assay: positive (+ activation), negative (- activation)
Salmonella typhimurium assay (Ames test): negative

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12. ECOLOGICAL INFORMATION

Introduction: This environmental effects summary is written to assist in addressing emergencies created by an accidental spill which might occur during the shipment of this material, and, in general, it is not meant to address discharges to sanitary sewers or publicly owned treatment works.

Data for this material have been used to estimate its environmental impact. It has the following properties: a moderate biochemical oxygen demand and may cause oxygen depletion in aqueous systems, a high potential to affect some aquatic organisms, a low potential to affect the germination and/or early growth of some plants, a low potential to affect the growth of some plant seedlings. The subject product is expected to biodegrade and is not expected to persist for long periods in an aquatic environment.

After dilution with a large amount of water, followed by secondary waste treatment, this material is not expected to cause adverse environmental effects.

Oxygen Demand Data:

ThOD: 2.24 g oxygen/g

COD: 1.71 g oxygen/g
BOD-5: 0.34 g oxygen/g
BOD-5: 0.43 g oxygen/g

Definitions for the following section(s): NOEC = no-observed-effect

concentration, LOEC = lowest-observed-effect concentration, MATC = maximum acceptable toxicant concentration.

Acute Aquatic Effects Data:

96-h LC-50 (fathead minnow): 0.92 mg/l; NOEC: 0.32 mg/l
96-h LC-50 (rainbow trout): 1.6 mg/l; NOEC: 0.5 mg/l
96-h LC-50 (sheepshead minnow): >0.60 mg/l; NOEC: 0.6 mg/l
96-h LC-50 (bluegill sunfish): 0.48 mg/l; NOEC: 0.42 mg/l
48-h EC-50 (daphnid): 3.0 mg/l; NOEC: 1.7 mg/l

Acute Algal Effects:

96-h EC-50 (Selenastrum capricornutum): 0.40 mg/l; NOEC: 0.21 mg/l

Chronic Aquatic Effects Data:

21-d Daphnid survival and reproduction test: LOEC: 2.5 mg/l, NOEC: 0.96 mg/l, MATC: 1.5 mg/l

60-d early life-stage toxicity test (rainbow trout): LOEC: 0.19 mg/l, NOEC: 0.10 mg/l, MATC: 0.14 mg/l

Biodegradation:

A 28-day test for ready biodegradability using unacclimated microorganisms showed >80% degradation of the test article as measured by carbon dioxide evolution.

7-Day Plant Germination Effects - No-adverse-effect concentration:

Ryegrass: 100 microliter(s)/l
Radish: 100 microliter(s)/l
Lettuce: 100 microliter(s)/l

7-Day Plant Seedling Effects - No-adverse-effect concentration:

Marigold: 1000 microliter(s)/l
Radish: 1000 microliter(s)/l
Corn: 1000 microliter(s)/l
Lettuce: 1000 microliter(s)/l

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13. DISPOSAL CONSIDERATIONS

Discharge, treatment, or disposal may be subject to national, state, or local laws. Incinerate.

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14. TRANSPORT INFORMATION

- DOT (USA) Status: net quantities less than 4.5 kg (10.0 pounds) are not

regulated; the following requirements apply to larger quantities:
- Class 9, packing group III
- DOT Reportable Quantity: 10.0 lb (4.5 kg); marine pollutant

- Air - International Civil Aviation Organization (ICAO)

listed on AICS or otherwise complies with NICNAS.

- Japanese Handbook of Existing and New Chemical Substances: This product is listed in the Handbook or has been approved in Japan by new substance notification.

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16. OTHER INFORMATION

Label Statements:

HIGH ORAL DOSES OF THIS MATERIAL CAUSE ADVERSE REPRODUCTIVE EFFECTS IN LABORATORY ANIMALS - SEE MSDS FOR DETAILS

Do not taste or swallow.
Wash thoroughly after handling.

FIRST AID: If swallowed, seek medical advice.

CAUTION: FOR MANUFACTURING, PROCESSING OR REPACKING BY TRAINED PERSONNEL

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The information contained herein is based on current knowledge and experience; no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment.

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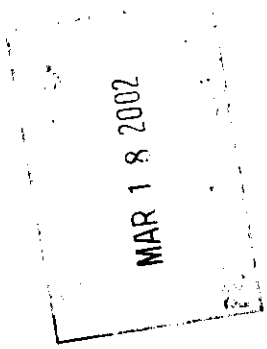
MAR 1 8 2002

Röhm America Inc.

24 Hour Emergency Number: 800-424-9300
24 Hour CHEMTREC Number: 800-424-9300

**Approval Date: June 4, 1999** **Cust: 02451001** **Page: 1**
Print Date: March 19, 2001 MSDS Number: MMA25HX RT-03

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name : METHYL METHACRYLATE**
Synonyms : Methyl ester of methacrylic acid; MMA; MMA inhibited

Supplier:
Röhm America Inc.
220 Davidson Avenue
Somerset, NJ 08873-6821

Manufacturer:
Cyro Industries
100 Enterprise Drive
Rockaway, NJ 07866

Environmental & Regulatory Affairs, Information Number: 732-981-5016

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Hazardous Ingredients**

| | CAS Number | % (Wt./Wt.) |
|---|---|---|
| Methyl methacrylate | 000080-62-6 | 100 |

See Section 8 for Exposure Guidelines

Other Composition Information:
This product contains 25 ppm of Hydroquinone (HQ) inhibitor.

## 3. HAZARDS IDENTIFICATION

***** EMERGENCY OVERVIEW ***:**
May cause allergic skin reaction. Flammable liquid and vapor. May cause eye irritation. May cause respiratory tract irritation.

**POTENTIAL HEALTH EFFECTS**

Eye Contact:
Irritating.

Skin Contact:
Possibly irritating. May cause skin sensitization, an allergic reaction, which becomes evident on re-exposure to this material.

Inhalation:
Irritating.

Ingestion:
No hazard expected in normal use.

MSDS Continued on Page 01

## 3. HAZARDS IDENTIFICATION (CONTINUED)

Subchronic/Chronic Hazards:
May cause central nervous system depression.

## 4. FIRST AID MEASURES

**FIRST AID**

Eye Contact:
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes or until all material has been removed. Obtain medical attention.

Skin Contact:
Immediately flush skin with plenty of water. Remove contaminated clothing. Obtain medical attention if irritation develops or persists. Wash clothing before reuse.

Inhalation:
If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If unconscious, evaluate the need for artificial respiration. Get immediate medical attention.

Ingestion:
If swallowed, get medical attention immediately. Only induce vomiting if directed by a physician. Never give anything by mouth to an unconscious person.

## 5. FIRE FIGHTING MEASURES

Flash Point: 50 °F Lower Explosive Limit: 2.1 %

Flash Point Method: Not available Upper Explosive Limit: 12.5 %

OSHA Flammability Classification: Flammable liquid
Autoignition Temperature: 790°F

**Other Flammable Properties:**
Flammable liquid. Vapors can travel to a source of ignition and flash back. Explosive mixtures may occur at temperatures at or above the flashpoint.

**Extinguishing Media:**
Use water spray or fog, foam, dry chemical or CO2.

MSDS Continued on Page 02

## 5. FIRE FIGHTING MEASURES (CONTINUED)

**Fire Fighting Procedures:**

Containers can build up pressure if exposed to heat (fire). Cool with water spray. As in any fire, wear self-contained, pressure-demand breathing apparatus (MSHA-NIOSH approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

***Steps To Be Taken In Case Material Is Released Or Spilled:***

Remove sources of ignition and ventilate area. Use a respirator and other protective equipment as outlined in Section 8. Absorb spill with inert material, then place in a chemical waste container. After removal, flush contaminated area with water and collect for disposal. Clean up spills immediately. Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

## 7. HANDLING AND STORAGE

**Handling:**

Keep away from heat. Keep away from sparks, flames and other sources of ignition. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use with adequate ventilation. Ground and bond containers when transferring material. Use explosion-proof equipment. Follow all MSDS/label precautions even after the container is emptied because it may retain product residues. Wash thoroughly after handling.

**Storage:**

Store in a cool, dry place. Keep container closed when not in use.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Limits**

| | Value | Limit | Reference |
|---|---|---|---|
| Methyl methacrylate | 100 ppm | TWA | OSHA/ACGIH |
| | N.E. | STEL | OSHA/ACGIH |

**Engineering Controls:**

Use process enclosures, local exhaust ventilation or other engineering controls to control airborne exposure.

**Respiratory Protection:**

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

MSDS Continued on Page 03

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONTINUED)

**Eye Protection:**
Use chemical splash goggles.

**Skin Protection:**
Use impermeable gloves.

**Other Protective Equipment:**
To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|---|---|---|
| Vapor Pressure | : | 40 mmHg @ 26°C |
| Vapor Density (Air = 1) | : | Is heavier than air |
| Specific Gravity | : | 0.94 |
| Boiling Point | : | 214°C |
| Melting Point | : | -54°F |
| pH | : | Not available |
| % Volatile | : | 100 |
| Evaporation Rate | : | Is faster than Butyl Acetate |

**Other Properties:**
Colorless. Clear. Liquid. Pungent odor. Solubility in water: 1% to 10%.

## 10. STABILITY AND REACTIVITY

**Stability:**
This product is stable under normal storage conditions.

**Hazardous Polymerization:**
Could occur under normal conditions.

**Conditions To Avoid:**
Avoid high temperatures and sources of ignition.

**Incompatibility With Other Materials:**
Oxidizing materials. Mineral acids. Reducing agents.

Hazardous Decomposition Products:
Carbon monoxide. Carbon dioxide.

MSDS Continued on Page 04

## 11. TOXICOLOGICAL INFORMATION

**Component Toxicological Information:**

| Chemical Name | Oral LD50 (rat) | Dermal LD50 (rabbit) | Inhalation LC50 (rat) |
|---|---|---|---|
| Methyl methacrylate | 7872 mg/kg | 9400 mg/kg | 3750 ppm |

**Other Toxicological Information:**
No information available.

## 12. ECOLOGICAL INFORMATION

**Ecological Information:**
No information available.

## 13. DISPOSAL CONSIDERATIONS

**Disposal Method:**
Waste must be disposed of in accordance with federal, state and local regulations. Incineration is the preferred method. Empty containers must be handled with care due to product residue. DO NOT HEAT OR CUT THE EMPTY CONTAINER WITH ELECTRIC OR GAS TORCH.

## 14. TRANSPORT INFORMATION

**U.S. DOT Transport Information**

Proper Shipping Name: Methyl methacrylate monomer, inhibited

Hazard Class: 3 Packing Group: II

RQ (lbs.): 1000

I.D. Number: UN1247 ERG No.: 129 Hazard Subclasses: None

Transport Label(s) Required: FLAMMABLE LIQUID

Additional Markings:
This material is supplemented with the letter "P" in the 1996 North American Emergency Response Guidebook which indicates that it presents a polymerization hazard under certain conditions.

MSDS Continued on Page 05

## 15. REGULATORY INFORMATION

This product contains the following non-hazardous components:

No non-hazardous components exist

**U.S. Federal Regulations**

OSHA:
This document has been prepared in accordance with the MSDS requirements of the OSHA Hazard Communication Standard.

Clean Air Act Section 112:
This product contains the following components present at or above the OSHA de minimus level and listed as Hazardous Air Pollutants:

| | CAS Number | Wt. % |
|---|---|---|
| Methyl methacrylate | 000080-62-6 | 100 |

This product contains the following components present at or above the OSHA de minimus level and listed as Extremely Hazardous Air Pollutants:

None

SARA Section 302:
This product contains the following components listed as Extremely Hazardous Substances:

None

SARA Section 311/312:
Hazard Classifications: Immediate (acute), Fire

SARA Section 313:
This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

| | CAS Number | Wt. % |
|---|---|---|
| Methyl methacrylate | 000080-62-6 | 100 |

TSCA:
This product or its components are listed in or exempt from the TSCA inventory requirements.

This product contains the following non-proprietary substances subject to export notification under Section 12(b) of TSCA:

None

MSDS Continued on Page 06

## 15. REGULATORY INFORMATION (CONTINUED)

**State Regulations**

New Jersey:
This product contains the following non-hazardous components subject to disclosure under New Jersey Right-To-Know legislation:

None

Pennsylvania:
This product contains the following non-hazardous components subject to disclosure under Pennsylvania Right-To-Know legislation:

None

California (Proposition 65):
This product contains the following substances known to the State of California to cause cancer:

None

This product contains the following substances known to the State of California to cause adverse reproductive effects:

None

International Regulations
Summary of International Chemical Inventory Status

| | |
|---|---|
| Canada | On inventory |
| Europe | On inventory |
| South Korea | On inventory |
| Australia | On inventory |

## 16. OTHER INFORMATION

HMIS Ratings: Health - 2 Flammability - 3 Reactivity - 2
Ratings Key: 4 = Highest hazard, 0 = Lowest hazard,
* = Chronic health hazard, N = No rating for powders
NFPA Ratings: Health - 2 Flammability - 3 Reactivity - 2
Ratings Key: 4 = Highest hazard, 0 = Lowest hazard, N = No rating for powders

Key to abbreviations used:

| | |
|---|---|
| NA | Not applicable |
| NAV | Not available |
| NE | Not established |
| NJTSR No. | New Jersey Trade Secret Registry Number |

MSDS Continued on Page 07

(CONTINUED)

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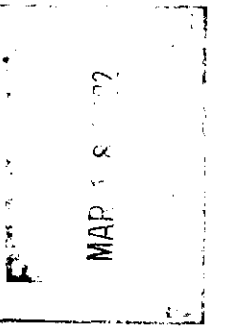


Revision Summary:
The following MSDS sections were revised since the previous version September 2, 1998:

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FIRST CHEMICAL CORPORATION
POST OFFICE BOX 7005 • PASCAGOULA, MISSISSIPPI 39568
TELEPHONE (601) 762-0870 TWX 510-990-3361

***Name: FIRSTCURE® DMPT***
Rev. A – Date Prepared: January 22, 1997

# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: FIRSTCURE® DMPT
General Use: Amine Liquid Cure Accelerator
Product Description: N,N-Dimethyl-p-Toluidine (DMPT)
Formula: $C_9H_{13}N$
Molecular Weight: 135

**MANUFACTURER:**
First Chemical Corporation
1001 Industrial Road
Pascagoula, MS 39581
(601) 762-0870

**EMERGENCY TELEPHONE NUMBERS:**
CHEMTREC (800) 424-9300
24 Hours Everyday

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

| | wt.% | CAS Registry # |
|---|---|---|
| N,N-Dimethyl-p-Toluidine | 99.0 | 99-97-8 |

| | EXPOSURE LIMITS 8 hrs. TWA (ppm) | |
|---|---|---|
| | OSHA PEL | ACGIH TLV |
| N,N-Dimethyl-p-Toluidine | None | None |

## 3. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:**

Clear colorless liquid, but darkens with exposure to light and air. Sweet aromatic amine odor.
Harmful if inhaled.
May cause skin irritation.
May cause allergic skin reaction.
Overexposure may cause cyanosis.

**POTENTIAL HEALTH EFFECTS:**

INHALATION:

Based on animal studies, this material may cause elevated methemoglobin in the blood. Symptoms include headaches, weakness and dizziness, and can be recognized by blue color of the lips, fingernails, nose, ear lobes and other extremities. High level exposures can cause shallow breathing, confusion, rapid heart beat, unconsciousness and death. Vapor or mist is irritating to mucous membranes and the upper respiratory tract.

EYE CONTACT:
May cause eye irritation.

SKIN CONTACT:
May cause skin irritation. FIRSTCURE® DMPT can be absorbed through the intact skin causing systemic toxicity. Prolonged or repeated exposure may cause allergic skin reaction in some people. Additional symptoms are similar to those caused by inhalation.

INGESTION:
May cause methemoglobinemia.

TARGET ORGANS:
Liver, central nervous system, blood, and skin.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:
Overexposure may aggravate existing cardiovascular or respiratory conditions, blood disorders, or dermatitis.

CARCINOGENICITY:
None of the components in this product at concentrations equal to or greater than 0.1% is listed by IARC, NTP, OSHA, or ACGIH as a carcinogen.

## 4. FIRST AID MEASURES

INHALATION:
Remove to fresh air immediately. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Consult a physician.

EYE CONTACT:
Flush eyes with water for at least 15 minutes. Have eyes examined and treated by a physician.

SKIN CONTACT:
Speed is essential in removing FIRSTCURE® DMPT from skin, hair, and nails. Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Wash skin, hair, and nails with soap and water. Have the person lie down and keep warm and quiet. Call a physician. If breathing is difficult, give oxygen

INGESTION:

Immediately induce vomiting as directed by a physician. Repeat until vomit is clear. Never give anything by mouth to an unconscious person. Consult a physician.

NOTE TO PHYSICIAN:

Absorption of this product into the body leads to the formation of methemoglobin, which in sufficient concentration causes cyanosis. Because reversion of methemoglobin to hemoglobin occurs spontaneously after termination of exposure, moderate degrees of cyanosis need be treated only by supportive measures such as bed rest and oxygen inhalation. Thorough cleansing of the entire contaminated area of the body is of utmost importance. If cyanosis is severe, intravenous injection of methylene blue, 1-2 mg/kg body weight over a 5 minute period as a 1 percent solution may be of value. If elevated methemoglobin persists after an hour, the treatment may be repeated, but the total dose should not exceed 7 mg/kg body weight. Cyanocobalamin (Vitamin B-12), 1 mg intramuscularly is reported to speed recovery. Intravenous fluids and blood transfusions may be indicated in very severe exposures.

## 5. FIRE FIGHTING MEASURES

| | |
|---|---|
| Flashpoint: | 181°F (83°C) |
| Method: | Tag Closed Cup (TCC) |
| Flammable Limits in Air, % by volume: | Lower: Not available |
| | Upper: Not available |
| Autoignition Temperature: | Not available |
| Extinguishing Media: | Water spray, fog, foam, carbon dioxide, dry chemical |

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Vapors may flow along surfaces to distant ignition sources and flash back. Toxic vapors may be given off at high temperatures.

FIRE FIGHTING INSTRUCTIONS:

Use water spray to cool containers and fire exposed surfaces. Shut off fuel to fire if possible to do so without hazard.

FIRE FIGHTING EQUIPMENT:

Wear full protective clothing with self-contained positive pressure breathing apparatus. If there is potential for skin exposure to FIRSTCURE® DMPT, see Section 8 of this MSDS.

HAZARDOUS COMBUSTION PRODUCTS:
Carbon monoxide, Nitrogen oxides.

## 6. ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES:
Evacuate area and keep personnel upwind. Cut off any source of ignition and ventilate spill area. Contain spill with absorbent material. Transfer absorbent and other contaminated materials to a UN approved covered container for disposal. Consult with Federal, State, and local regulatory agencies to determine acceptable clean-up levels. Comply with Federal, State, and local regulations on reporting releases.

## 7. HANDLING AND STORAGE:

STORAGE TEMPERATURE:
Storage in a cool, dry, well-ventilated area at 40° - 90°F (5° - 32°C ) is recommended.

GENERAL:
Keep in original tightly closed containers.
Keep away from strong oxidizing agents or acids.
Prevent skin and eye contact.
Avoid breathing vapors.
Thorough showering at the end of the work shift is strongly recommended.
Work clothes should be laundered daily.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

PERSONAL PROTECTION:
RESPIRATORY PROTECTION:
If vapors of FIRSTCURE® DMPT are present, use, as a minimum, a NIOSH approved full-face respirator with canisters or cartridges specifically approved for use with organic vapors. Whenever cartridge or canister respirators are used, insure the frequent changing of the filter element. Use a supplied air respirator when in doubt of the atmospheric concentration. Consult 29 CFR 1910.134 regarding use of respirators.

PROTECTIVE CLOTHING:

Take all precautions to prevent skin contact. Use supported neoprene gloves for routine work and butyl rubber gloves when there is a probability of liquid contact. Do not use nitrile rubber as a protective material. Additional protection, such as a butyl rubber full body suit may be required depending upon conditions.

EYE / FACE PROTECTION:

Use chemical goggles. Wear a full face shield if splashing is possible.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure: 5.0 mmHg at 162°F (72°C)
Specific Gravity: 0.930
Solubility in Water: Negligible (<0.1%)
Boiling Point: 412°F (211°C)
Physical State: Liquid

Vapor Density: 4.6 (Air = 1)
Evaporation Rate: 0.5 (Butyl Acetate = 1)
pH: Not applicable
Odor: Disagreeable amine
Appearance: Clear colorless liquid, but darkens with exposure to light and air

## 10. STABILITY AND REACTIVITY

GENERAL:

Stable at normal temperatures and conditions of storage.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:

Reacts violently with strong oxidizers, strong acids, and hypochlorite bleaches. FIRSTCURE® DMPT will attack some forms of plastics, rubber, and coatings.

HAZARDOUS DECOMPOSITION:

Carbon monoxide, Nitrogen oxides.

HAZARDOUS POLYMERIZATION:

Will not normally occur.

## 11. TOXICOLOGICAL INFORMATION

**DATA FOR FIRSTCURE® DMPT:**

| | |
|---|---|
| INHALATION: | $LC_{50}$, rat (4 hr): 254 ppm, moderately toxic. |
| EYE CONTACT: | FHSA score 6.4/110, slightly irritating. |
| SKIN CONTACT: | $LD_{50}$, rat: >2000 mg/kg, no more than slightly toxic. Primary Irritation Index: 3.6/8.0, moderately irritating. Both positive and negative results found for sensitization in guinea pigs; reported to cause sensitization in humans. |
| INGESTION: | $LD_{50}$, rat: 1650 mg/kg, slightly toxic. Methemoglobinemia noted after single oral doses. |
| GENOTOXICITY: | Not mutagenic in bacterial cells in culture; caused chromosome damage in animal cells in culture. |
| TARGET ORGANS: | Liver, central nervous system, blood, and skin. |

## 12. ECOLOGICAL INFORMATION.

No information is available for FIRSTCURE® DMPT.

## 13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS:

Consult 40 CFR, Parts 261 and 268, State, and local regulations for guidance on disposal of this product. Incineration at a facility with proper Federal and State issued permits is the recommended method for disposal

CONTAINER DISPOSAL:

Empty containers retain product residue. Observe all hazard precautions. Keep away from heat, sparks, and flames. Do not distribute, make available, or reuse empty containers except for storage and shipment of original product. Remove all hazardous product residue, and puncture or otherwise destroy empty containers before disposal. Consult 40 CFR 261 and 268 for guidance on disposal.

## 14. TRANSPORT INFORMATION

DOT/IMO/ICAO/IATA:
Proper Shipping Name: TOXIC LIQUIDS, ORGANIC, N.O.S. (N,N-DIMETHYL-p-TOLUIDINE)
Hazard Class: 6.1
Identification Number: UN 2810
Packing Group: III
Labels Required: Toxic
IMDG Page No.: 6270-1

## 15. REGULATORY INFORMATION

TSCA (Toxic Substance Control Act):
This product is listed on the TSCA Inventory.

SARA TITLE III (Superfund Amendments and Reauthorization Act):
311/312 Hazard Categories.
Acute.

313 This product is not subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

CERCLA (Comprehensive Response Compensation and Liability Act):
Not Reportable.

We recommend you contact local authorities to determine if there may be other local reporting requirements.

## 16. OTHER INFORMATION

Preplacement and periodic physical examinations should be performed on all individuals working in FIRSTCURE® DMPT exposure areas. Individuals with liver or kidney disorders, impaired cardiovascular status, or a history of alcoholism should avoid exposure. Because the long term human health effects from exposure to FIRSTCURE® DMPT have not been fully evaluated, exposure should be kept to the lowest level possible. This material is for industrial use. Use only under the supervision of a technically qualified individual.

Label Information:

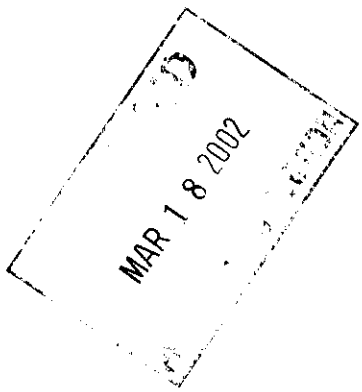
HMIS Codes

Health - 2
Fire - 2
Reactivity - 0
Specific Hazard - None

REVISION SUMMARY:
Rev. A – Initial 16 Section MSDS.

Prepared by: Steven C. Dawson, CIH
Manager, Industrial Hygiene & Health

*The information included in this document is taken from sources, or based on data believed* to be reliable and given in good faith. No warranty is made, however, as to the absolute correctness of any of this information, or that additional or other measures may not be required under particular conditions. The data in this Material Safety Data Sheet relates only to the specific material designated and does not relate to use in combination with any other material or in any process. Please refer to the OSHA Hazard Communication Standard 29 CFR 1910.1200 for guidance in the use of this information.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# ACETONE

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Material Identity**
Product Name: ACETONE
General or Generic ID: KETONE

**Company**
Ashland Chemical Co.
P.O. Box 2219
Columbus, OH 43216
614-790-3333

**Emergency Telephone Number:**
1-800-ASHLAND (1-800-274-5263)
24 hours everyday

Regulatory Information Number:
1-800-325-3751

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredient(s) | CAS Number | % (by weight) |
|---|---|---|
| ACETONE | 67-64-1 | 98.0-100.0 |

## 3. HAZARDS IDENTIFICATION

### Potential Health Effects

**Eye**
Exposure can cause eye irritation. Symptoms may include stinging, tearing, redness, and swelling.

**Skin**
Exposure may cause mild skin irritation. Prolonged or repeated exposure may dry the skin. Symptoms may include redness, burning, drying and cracking, and skin burns. Skin absorption is possible, but harmful effects are not expected from this route of exposure under normal conditions of handling and use.

**Swallowing**
Single dose oral toxicity is low. Swallowing small amounts during normal handling is not likely to cause harmful effects; swallowing large amounts may be harmful. This material can enter the lungs during swallowing or vomiting and cause lung inflammation and/or damage.

**Inhalation**
Exposure to vapor or mist is possible. Short-term inhalation toxicity is low. Breathing small amounts during normal handling is not likely to cause harmful effects; breathing large amounts may be harmful. Symptoms are more typically seen at air concentrations exceeding the recommended exposure limits.

**Symptoms of Exposure**
mouth and throat irritation, gastrointestinal irritation (nausea, vomiting, diarrhea), irritation (nose, throat, respiratory tract), cough, central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), central nervous system (CNS) depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other CNS effects, high blood sugar, coma.

Continued on next page

**Target Organ Effects**
This material (or a component) shortens the time of onset or worsens the liver and kidney damage induced by other chemicals. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals, and may aggravate pre-existing disorders of these organs in humans: mild, reversible liver effects, mild, reversible kidney effects.

**Developmental Information**
This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

**Cancer Information**
No data

**Other Health Effects**
No data

**Primary Route(s) of Entry**
Inhalation, Skin absorption, Skin contact, Eye contact.

## 4. FIRST AID MEASURES

**Eyes**
If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

**Skin**
Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

**Swallowing**
Do not induce vomiting. This material is an aspiration hazard. If individual is drowsy or unconscious, place on left side with the head down. Seek medical attention. If possible, do not leave individual unattended.

**Inhalation**
If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

**Note to Physicians**
This material (or a component) has produced hyperglycemia and ketosis following substantial ingestion.

## 5. FIRE FIGHTING MEASURES

**Flash Point**
-4.0 F (-20.0 C) TCC

Continued on next page

**Explosive Limit**
(for component) Lower 2.6 Upper 12.8 %

**Autoignition Temperature**
869.0 F

**Hazardous Products of Combustion**
May form: carbon dioxide and carbon monoxide.

**Fire and Explosion Hazards**
Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

**Extinguishing Media**
alcohol foam, carbon dioxide, dry chemical.

**Fire Fighting Instructions**
Water may be ineffective. Water may be used to keep fire-exposed containers cool until fire is out. Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

**NFPA Rating**
Health - 1, Flammability - 3, Reactivity - 0

## 6. ACCIDENTAL RELEASE MEASURES

**Small Spill**
Absorb liquid on vermiculite, floor absorbent or other absorbent material.

**Large Spill**
Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal. Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

## 7. HANDLING AND STORAGE

**Handling**
Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. All five gallon pails and larger metal containers including tank cars and tank trucks should be grounded and/or bonded when material is transferred. Warning. Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition

Continued on next page

sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Eye Protection**
Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

**Skin Protection**
Wear resistant gloves (consult your safety equipment supplier)., To prevent repeated or prolonged skin contact, wear impervious clothing and boots..

**Respiratory Protections**
If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

**Engineering Controls**
Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

**Exposure Guidelines**
Component
---

ACETONE (67-64-1)
OSHA VPEL 750.000 ppm - TWA
OSHA VPEL 1000.000 ppm - STEL
ACGIH TLV 750.000 ppm - TWA
ACGIH TLV 1000.000 ppm - STEL

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Boiling Point**
(for component) 133.0 F (56.1 C) @ 760 mmHg

**Vapor Pressure**
(for component) 88.800 mmHg @ 68.00 F

**Specific Vapor Density**
2.000 @ AIR=1

**Specific Gravity**
.785 - .788 @ 77.00 F

Continued on next page

**Liquid Density**
6.590 lbs/gal @ 68.00 F
.791 kg/l @ 20.00 C

**Percent Volatiles**
100.0 %

**Volatile Organic Compounds (VOC)**
.000 %
.000 g/l
6.590 lbs/gal

**Evaporation Rate**
14.40 (N-BUTYL ACETATE)

**Appearance**
COLORLESS LIQUID

**State**
LIQUID

**Physical Form**
NEAT

**Color**
CLEAR, APHA COLOR 5 MAX

**Odor**
MILD/SWEET

**pH**
No data

**Viscosity**
.3 cps

**Freezing Point**
-139.0 F (-95.0 C)

**Molecular Weight**
58.1

**Solubility in Water**
SOLUBLE

**Bulk Density**
.880 lbs/ft3

## 10. STABILITY AND REACTIVITY

**Hazardous Polymerization**
Product will not undergo hazardous polymerization.

Continued on next page

**Hazardous Decomposition**
May form: carbon dioxide and carbon monoxide.

**Chemical Stability**
Stable.

**Incompatibility**
Avoid contact with: acids, strong oxidizing agents.

## 11. TOXICOLOGICAL INFORMATION

No data

## 12. ECOLOGICAL INFORMATION

No data

## 13. DISPOSAL CONSIDERATION

**Waste Management Information**
Dispose of in accordance with all applicable local, state and federal regulations.

## 14. TRANSPORT INFORMATION

**DOT Information - 49 CFR 172.101**
**DOT Description:**
ACETONE,3,UN1090,II

**Container/Mode:**
55 GAL DRUM/TRUCK PACKAGE

**NOS Component:**
None

**RQ (Reportable Quantity) - 49 CFR 172.101**

| Product Quantity (lbs) | Component |
|---|---|
| 5000 | |

## 15. REGULATORY INFORMATION

**US Federal Regulations**
**TSCA (Toxic Substances Control Act) Status**
TSCA (UNITED STATES) The intentional ingredients of this product are listed.

Continued on next page

**40 CFR 302.4(a)**

| | RQ (lbs) |
|---|---|
| ACETONE | 5000 |

**SARA 302 Components - 40 CFR 355 Appendix A**
None

**Section 311/312 Hazard Class - 40 CFR 370.2**
Immediate(X) Delayed(X) Fire(X) Reactive( ) Sudden Release of Pressure( )

**SARA 313 Components - 40 CFR 372.65**
None

**International Regulations**
**Inventory Status**
DSL (CANADA) The intentional ingredients of this product are listed.

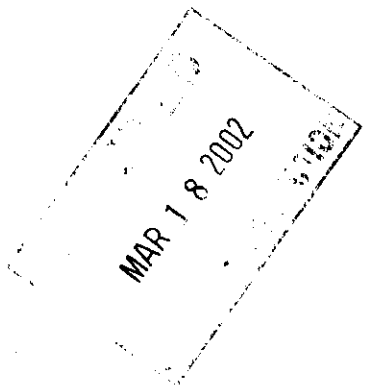
**State and Local Regulations**
**California Proposition 65**
The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause cancer.
FORMALDEHYDE (GAS)
BENZENE
ACETALDEHYDE

**New Jersey RTK Label Information**
ACETONE 67-64-1

**Pennsylvania RTK Label Information**
2-PROPANONE 67-64-1

## 16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.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**CERCLA RQ - 40 CFR 302.4(a)**

| Component | RQ (lbs) |
|---|---|
| ACETONE | 5000 |

**SARA 302 Components - 40 CFR 355 Appendix A**
None

**Section 311/312 Hazard Class - 40 CFR 370.2**
Immediate(X) Delayed(X) Fire(X) Reactive( ) Sudden Release of Pressure( )

**SARA 313 Components - 40 CFR 372.65**
None

**International Regulations**
**Inventory Status**
DSL (CANADA) The intentional ingredients of this product are listed.

**State and Local Regulations**
**California Proposition 65**
The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause cancer.
FORMALDEHYDE (GAS)
BENZENE
ACETALDEHYDE

**New Jersey RTK Label Information**
ACETONE 67-64-1

**Pennsylvania RTK Label Information**
2-PROPANONE 67-64-1

## 16. OTHER INFORMATION

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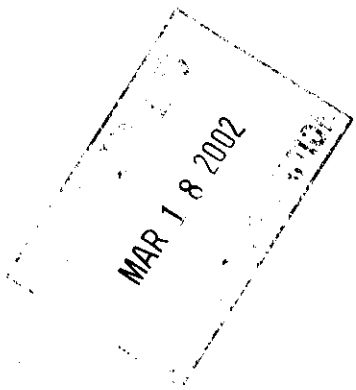
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